

Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The final Office Action dated April 27, 2004, acknowledged the election of claims 13-20 with traverse and made the restriction final; indicated that claims 12-20 are rejected under 35 U.S.C. § 112(2); and indicated that claims 12(-20) are rejected under 35 U.S.C. § 103(a) over *Paniccia et al.* (U.S. Patent No. 6,072,179) in view of *Kikuchi* (U.S. Patent No. 5,999,006).

Applicant maintains the traversal of the restriction requirement for the reasons previously presented. Notwithstanding this traversal, Applicant has canceled claims 1-11 without prejudice in an effort to facilitate prosecution.

With respect to the Section 112(2) rejection, Applicant respectfully traverses because the claims particularly point out and distinctly claim the subject matter of the invention. The questioned claim terminology was explained in the Office Action Response filed on February 19, 2004. The Examiner is incorrect in suggesting that the term "inhibit" is limited to the extreme condition of preventing the optical beam from reaching the circuit. As supported by the instant Specification, *e.g.*, page 6, lines 14-20, and Figure 1, the modulated optical beam reaches the selected portion of the die and the laser modulation is used to inhibit the optical beam's intrusion on the IC. Also, the dictionary definition of "inhibit" is consistent with Applicant's Specification: the Merriam-Webster online dictionary (www.m-w.com) defines "inhibit" as to hold in check, or restrain and the dictionary at www.hyperdictionary.com defines "inhibit" as to limit the range or extent of. The MPEP requires that claim terms be read in view of their plain meaning when used in a manner consistent with the accepted meaning. *See*, MPEP § 706.03(d). As Applicant has explained that the claim term at issue is directed to an optical beam of short duration so as to limit intrusion on the integrated circuit, the rejection is based on an unsupported and irrelevant comment or opinion proffered by the Examiner. Applicant also fails to recognize the import of the Examiner's comment that the Specification should have been clearer about this unsupported comment in the Office Action. Applicant submits that the Examiner's Section 112(2) rejection is without support and requests that the rejection be withdrawn.

Applicant respectfully maintains the traversal of the Section 103(a) rejection because the Office Action fails to present a combination of references that corresponds to the claimed invention. While the "Response to Arguments" section attempts to rebuff Applicant's arguments, the Office Action still fails to identify any teachings in the cited references of a modulated beam adapted to inhibit optical beam intrusion upon an integrated circuit. Applicant fails to see where the '179 reference teaches the alleged mode-locked laser modulation is used to inhibit optical beam intrusion upon the integrated circuit. The '006 reference fails to compensate for such deficiency as the light is not modulated nor modulated so as to inhibit optical beam intrusion, as claimed. Without a showing of complete correspondence to each of the claimed limitations, the Section 103(a) rejection is improper and cannot be maintained. Applicant accordingly requests that the rejection be withdrawn.

With particular respect to claim 15, Applicant maintains that the Office Action ignores claim limitations directed to the optical beam pulse length. Ignoring Applicant's arguments, the Office Action again concludes that "since criticality has not been established it would be obvious to use any pulse length needed for circuit analysis as a matter of design choice." Claim 15 is specifically directed to an optical beam arrangement adapted to pulse a laser at "femto-second-range pulses," with the modulation being important for a circuit structure problem that is not a concern for the '179 reference. The import of the claimed pulse length is specifically discussed at page 7, lines 8-11: "The femto-second pulse duration aids in analysis of circuitry operating at high frequency, and in circuitry located such that analysis using a laser having a longer pulse or constant application would harm the die." The Office Action cannot ignore such specific claim limitations when none of the cited references recognize or address the problem. *See* MPEP § 2141.02. This is part of the "subject matter as a whole" which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103. Moreover, the instant Office Action fails to respond to these previously-presented arguments, thereby violating MPEP § 707.07(f). Without a showing of correspondence to each of the claimed limitations, the Section 103(a) rejection cannot stand. Applicant requests that the rejection be withdrawn.

Applicant further maintains the traversal of the Section 103(a) rejection because the Office Action's proposed modification would frustrate the purpose and operation of

the '179 teachings thereby rendering the proposed modification unmotivated and improper. The MPEP states that when a proposed modification would render the teachings being modified unsatisfactory for their intended purpose, there is no suggestion or motivation to make the proposed modification under 35 U.S.C. § 103(a). *See* MPEP § 2143.01. The Office Action suggests inserting the damaged '006 substrate (substrate has pin holes in the buried oxide layer as shown in Figures 1, 4 and 5) or the damaging analysis technique of the '006 teachings into the '179 teachings. The '179 reference is directed to operating a DUT to detect electrical waveforms corresponding to varying voltages. *See* col. 7, line 65 - col. 8, line 2. The damaged '006 substrate would not operate properly while under test to provide the desired voltage correlation data. Moreover, the '179 backside analysis technique would result in the mode-locked laser intruding into the SOI circuitry thereby disrupting the operation of the structure and likely damaging the circuitry, thus eliminating the possibility of testing the structure's integrity. To suggest that the skilled artisan would use the '179 teachings on the '006 SOI structure is untenable and would undermine the purpose and operation of the '179 reference. Thus, the proposed combination is unmotivated and Applicant requests that the Section 103(a) rejection be withdrawn.

In view of the above discussion, Applicant believes that the rejection has been overcome and the application is in condition for allowance. A favorable response is requested. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

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